

intermediate between the parents. A. E. Longley's "Cytological Studies in the Genus Crataegus" published in The American Journal of Botany 11:295-317; 1924 showed that C. hillii is of hybrid origin, a hypothesis morphologically verified by the odd number of its stamens. Its parents were the Downy Hawthorn mollis and the Scarlet Hawthorn pedicellata. But the nutlets of hillii are 9 mm. long, thin, and acute at both ends, a combination of characters not found in either parent or in any other species of its region.

13. On the assumption that "classical" taxonomy is the proper base, adequate treatment of Crataegus requires detailed descriptions of all species and varieties, regardless of their phylogeny.

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16065

NOTES ON NEW AND NOTEWORTHY PLANTS. XXXVII

Harold N. Moldenke

DURANTA DOMBEYANA var. ESPINOSAE Moldenke, var. nov.

Haec varietas a forma typica speciei calicibus sub anthesin 10--12 mm. longis recedit.

This variety differs from the typical form of the species in having its calyxes at time of anthesis 10--12 mm. long.

The type of the variety was collected by my friend and colleague, Dr. Reinaldo Espinosa (1899--1950), no. E.1805 — in whose honor it is named — at Zaruma (alturas de Viscaya), at an altitude of 1530 meters, El Oro, Ecuador, on August 18, 1947, and is deposited in the Britton Herbarium at the New York Botanical Garden. The collector, whose untimely death on a botanical excursion was a great loss to South American botanical science, notes "Arbusto de ramas duras y largas. Hojas color verde claro. Corola color lila muy claro. Frecuente."

LANTANA CUJABENSIS var. PARVIFOLIA Moldenke, var. nov.

Haec varietas a forma typica speciei laminis foliorum lanceolatis 2.3--4.5 cm. longis 1--2.1 cm. latis recedit.

This variety differs from the typical form of the species in having its leaf-blades lanceolate, 2.3--4.5 cm. long, and 1--2.1 cm. wide.

The type of the variety was collected by N. Angulo and H. Arnaldo López Miranda (no. 1346) at Jalca, at an altitude of 3360 meters, Jalca de Ullancán, province of Utuzco, La Libertad, Peru, on July 1, 1951, and is deposited in the H. N. Moldenke Herbarium at Yonkers, New York.

*LANTANA TRIFOLIA* f. *RUBIERENSIS* Moldenke, f. nov.

Haec forma a forma typica speciei recedit laminis foliorum argute acuminatis et marginibus grosse crenatis.

This form differs from the typical form of the species in having its leaves sharply acuminate at the apex and the margins coarsely crenate.

The type of this form was collected by Mayeul Grisoll (no. 15) at La Rubiera, near Calabozo, Guárico, Venezuela, and is deposited in the United States National Herbarium at Washington.

*LIPPIA LOPEZII* Moldenke, sp. nov.

Arbuscula ramosa; ramis gracilibus obtuse tetragonis sulcatisque minute puberulis; ramulis pergracilibus puberulis; foliis oppositis parvis, laminis 6—10 mm. longis 3—4 mm. latis obovatis obtusis vel subacutis, ad apicem parcidenticulatis, utrinque minute albido-strigillosis; inflorescentiis axillaribus oppositis subsessilibus capitatis multifloris cinereis.

Small shrub, apparently considerably branched; branches slender, brownish, obtusely tetragonal and margined, striate-sulcate between the angles, minutely puberulent; branchlets very slender, tetragonal, margined, puberulent; principal internodes rather uniformly 1—1.5 cm. long; leaves decussate-opposite, sometimes somewhat fasciculate, sessile or subsessile, thick-textured, obovate, 6—10 mm. long, 3—4 mm. wide, obtuse or subacute and sparsely denticulate at the apex, rather cuneately narrowed and entire to the base, minutely white-strigillose on both surfaces, rather more densely so beneath; midrib usually impressed above and prominent beneath, the remainder of the venation obscure; inflorescence axillary, opposite, sessile or subsessile, capitata, many-flowered, grayish-puberulent throughout; corolla hypocrateriform, about 5 mm. long, white, densely white-strigose outside.

The type of this species was collected by H. Arnaldo López Miranda and A. Sagástegui A. (no. 3426) on a dry rocky slope between Huaylillas and Tayabamba, province of Patate, La Libertad, Peru, at an altitude of 2350 meters, on May 21, 1961, and is deposited in the H. N. Moldenke Herbarium at Yonkers, New York.

412 *PAEPALANTHUS DICHOTOMUS* var. *GLABRESCENS* Moldenke, var. nov.

Haec varietas a forma typica speciei foliis extra basin glabris nitidisque recedit.

This variety differs from the typical form of the species in having its leaves, except for the very base, completely glabrous and shiny.

The type of the variety was collected by John J. Wurdack (no. 1388), locally frequent, in clumps, in the Jalca zone 1—5 km. west of Molinopampa, at an altitude of 2400—2450 meters, province of Chachapoyas, Amazonas, Peru, on July 18, 1962, and is deposited in the United States National Herbarium at Washington.

444 *PAEPALANTHUS WURDACKI* Moldenke, sp. nov.

Herba perennis; caule lignoso elongato dense folioso; foliis

oblongo-linearibus usque ad 1 cm. longis ad apicem subobtusis vel acutis supra dense adpresso-pilosis, pilis albis antrorsis, subtus glabris; pedunculis terminalibus solitariis, 3.5--5.5 cm. longis pergracillimis tortis dense adpresso-pilosis, pilis albis antrorsis; vaginis arcte adpressis 1 cm. longis dense albopilosis, pilis adpressis antrorsis, ad apicem densissime albobarbatis; capitulis solitariis hemisphaericis vel subglobosis ca. 5 mm. latis albis; bracteolis involucris oblanceolatis brunneis 1.5--2 mm. longis 0.5 mm. latis ciliolatis.

Perennial herb, forming dense mats; stems numerous, branched, apparently 5 cm. long or longer, woody, densely leafy toward the apex; leaves numerous, oblong-linear, very pronouncedly gray-green in appearance, to 1 cm. long, about 1 mm. wide, subobtuse or acute at the apex, opaque, not fenestrate, densely appressed-pilose with white antrorse hairs above, glabrous and shiny beneath, long-ciliate on the margins, barbate at the apex; peduncles terminal on each stem, solitary, far surpassing the leaves, 3.5--5.5 cm. long, very slender, twisted, densely appressed-pilose with white antrorse hairs; sheath narrow, closely appressed, about 1 cm. long, densely white-pilose with appressed antrorse hairs, very conspicuously and densely long-barbate at the apex; heads solitary, simple, hemispheric or later subglobose, white, about 5 mm. wide, densely many-flowered; involucre bractlets oblanceolate, brown, shiny, 1.5--2 mm. long, about 0.5 mm. wide, rather obtuse at the apex, glabrous except for the ciliate margins.

The type of this distinctive species was collected by John J. Wurdack (no. 1081) -- in whose honor it is named -- locally abundant, in clumps, in the Jalca zone along the Yambrashbamba--Pomacocha trail between Yanayacu and Pomacocha, at an altitude of 2300--2400 meters, province of Bongará, Amazonas, Peru, on June 26, 1962, and is deposited in the United States National Herbarium at Washington.

VERBENA PUMILA f. ALBIDA Moldenke, f. nov.

Haec forma a forma typica speciei corollis albis recedit.

This form differs from the typical form of the species in having white corollas.

The type of the form was collected by Robert Runyon (no. 2499) in sandy loam, open sandy ground, at the edge of Kenedy County along Highway 96 at the Willacy County line, at an altitude of 10 meters, Texas, on April 18, 1941, and is deposited in the Britton Herbarium at the New York Botanical Garden. This brings to 31 the described white-flowered forms of otherwise differently colored species of this genus. White mutations have been described also in *Caryopteris* (1), *Clerodendrum* (4), *Cornutia* (1), *Duranta* (1), *Lantana* (14), *Petrea* (3), *Phyla* (1), *Stachytarpheta* (4), and *Vitex* (6). Four white-fruited forms have been described in *Callicarpa* and one in *Lantana*. Unquestionably more will be discovered as our knowledge of these and other verbenaceous genera improves and collectors' field notes become more complete.